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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/066,431	01/31/2002	Yonghe Liu	TI-33527	5100
23494	7590	05/02/2006	EXAMINER	
TEXAS INSTRUMENTS INCORPORATED P O BOX 655474, M/S 3999 DALLAS, TX 75265			WILSON, ROBERT W	
			ART UNIT	PAPER NUMBER
			2616	

DATE MAILED: 05/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/066,431

Applicant(s)

LIU ET AL.

Examiner

Robert W. Wilson

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 22-40 is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☒ Claim(s) 2-21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Allowable Subject Matter

1. Claims 22-29 & 31-40 are allowed.

The closest prior art is Young (U.S. Patent No.: 6,965,942). Young teaches method for implementing a backoff counter by first determining the state of the hardware backoff counter and if the hardware backoff counter is in the process of counting down or performing a procedure determined the state of the medium and if the medium is idle then decrementing a value in the hardware backoff counter and if the value is equal to zero then allowing transmission to occur and if the communications medium is busy, then updating a value in each backoff counter per col. 7 lines 11-47.

The following is an Examiner's statement of reasons for allowance:

Claims 22-29 & 31-34 are considered allowable since when reading the claims in light of the specification, none of the references of record alone or in combination disclose or suggest the combination of limitations specified in the independent claims including selecting a backoff counter with a smallest value; moving the selected backoff counter to the hardware backoff counter; and initiating a new backoff procedure with the hardware backoff counter” as specified in claim 22

The closest prior art is Benveniste (Patent Pub. No.: US2002/0154653). Benveniste teaches : a circuit for implementing a plurality of backoff counters. The BKOFF TIMER or hardware decrements backoff time when the network is idle. The BKOFF TIMER inherently has memory. BACKOFF RANGE is processor coupled to the hardware backoff timer which provides an initial backoff timer value.

The following is an Examiner's statement of reasons for allowance:

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Claims 35-40 are considered allowable since when reading the claims in light of the specification, none of the references of record alone or in combination disclose or suggest the combination of limitations specified in the independent claims including the structure to perform “a generate a new virtual backoff unit coupled to the initial transmit hardware enqueue unit and memory, the generate new virtual backoff unit containing circuitry to generate virtual backoff times and to place the transmission request forward to it by the initial transmit hardware enqueue unit onto a queue” as claimed in claim 35 and 38 respectively.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Benveniste (Patent Pub. No.: US2002/0154653) further in view of Russell (U.S. Patent No.: 6,349,388)

Referring to claim 1, Benveniste teaches: Figures 2 shows a method for contention for access to a communication medium to transmit a message of a high urgency class or first traffic category in a system implementing a plurality of backoff counters. High urgency class packets are assigned queue into Data Buffer which is associated with BKOFF TIMER or hardware backoff counter (determining) and the next step is to follow through with a backoff procedure. In the event that the BKOFF TIMER or backoff counter is busy then the timer is decremented which is associated with high urgency traffic of first traffic category. The values of the hardware backoff timer associated with high urgency class packets are compared to the hardware backoff timer of

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medium urgency packets or second traffic category. Based upon the determination of whether a backoff counter value is zero or comparing the backoff procedure process. All backoff counter eventually countdown to zero achieve an inherent idle state.

Benveniste does not expressly call for: virtual backoff counters or wherein the hardware backoff counter is a single hardware backoff counter.

Russell teaches: virtual back off counters (0 through n-1 in 220 per Fig 2 each is a virtual backoff counter) and processor shown in Fig 2 and described per col. 4 line 33-col. 5 line 47 is a single hardware back off counter.

It would have been obvious to add the virtual backoff counters in a single processor or single hardware backoff counter of Russel in place of the separate backoff counters of Benveniste in order to minimize the hardware required to implement the timing system per col. 1 line 30-47 per Russell.

Response to Amendment

4. Applicant's arguments with respect to claims 1-40 have been considered but are moot in view of the new ground(s) of rejection.

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period

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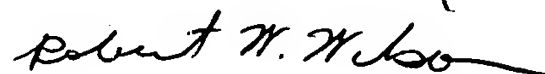
will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert W. Wilson whose telephone number is 571/272-3075. The examiner can normally be reached on M-F (8:00-4:30).

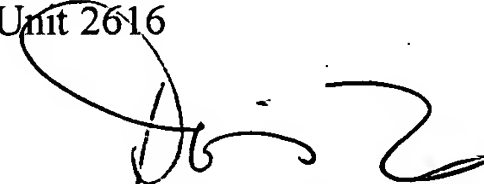
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris To can be reached on 571/272-7629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Robert W Wilson
Examiner
Art Unit 2616

RWW
4/20/06



DORIS H. TO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600